



PATENT APPLICATION  
Docket No: 11675.184.2

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of )  
 )  
 Salman Akram )  
 ) Art Unit  
 Serial No.: 10/083,034 ) 2826  
 )  
 Filed: February 26, 2002 )  
 )  
 For: CHIP PACKAGE WITH GREASE HEAT SINK )

TECHNOLOGY CENTER 2800

APR 22 2002

RECEIVED

INFORMATION DISCLOSURE STATEMENT  
UNDER 37 C.F.R. § 1.97

Assistant Commissioner for Patents  
Washington, D.C. 20231

Sir:

Please find, pursuant to 37 C.F.R. § 1.98(a)(1), the enclosed Form PTO-1449 which contains a list of all patents, publications, or other items that have come to the attention of one or more of the individuals designated in 37 C.F.R. § 1.56(c). While no representation is made that any of these references may be "prior art" within the meaning of that term under 35 U.S.C. §§ 102 or 103, the enclosed list of references is disclosed so as to fully comply with the duty of disclosure set forth in 37 C.F.R. § 1.56.

Moreover, while no representation is made that a specific search of office files or patent office records has been conducted or that no better art exists, the undersigned attorney of record believes that the enclosed art is the closest to the claimed invention (taken in its

entirety) of which the undersigned is presently aware, and no art which is closer to the claimed invention (taken in its entirety) has been knowingly withheld.

In accordance with 37 C.F.R. §§ 1.97 and 1.98, a copy of each of the listed references or relevant portion thereof is also enclosed.

In accordance with 37 C.F.R. § 1.98(c), all English translations within the possession, custody, control or availability of anyone designated in 37 C.F.R. § 1.56(c) of each nonenglish reference, if any, are also enclosed.

#### U.S. Patents

<u>Patent No.</u>	<u>Issue Date</u>	<u>Name</u>	<u>Class</u>	<u>Sub Class</u>
6,011,304	1/2000	Mertol	257	706
6,215,180	4/2001	Chen, et al.	257	720
5,583,378	12/1996	Marrs, et al.	257	710
6,175,157	1/2001	Morifuji	257	777
6,218,202	4/2001	Yew, et al.	438	15
5,907,189	5/1999	Mertol	257	787
5,786,631	7/1998	Fishley, et al.	257	701
5,930,893	8/1999	Eaton	29	890.03
5,843,810	12/1998	Sato, et al.	438	123
5,834,337	11/1998	Unger, et al.	438	122
5,475,040	12/1995	Jamison, et al.	523	513
5,910,010	6/1999	Nishizawa, et al.	438	15
5,891,755	4/1999	Edwards, et al.	438	108

#### Foreign Patents

<u>Patent No.</u>	<u>Issue Date</u>	<u>Country</u>	<u>Translation</u>
JP362023138A	1/1987	Japan	Yes - Abstract

#### Other Documents

R. Hundadi, et al., "High Thermal Conductivity Greases," pp. 28-32, Advanced Packaging, April 1999.

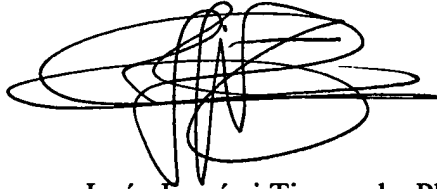
Chia-Pin Chiu, et al., "Thermal Modeling of Grease-Type interface Material in PPGA Application," pp. 57-63, Thirteenth IEEE SEMI-THERM Symposium, 1997.

Please credit any over payment or charge any additional fees to Deposit Account No.

23-3178 of the undersigned.

Dated this 18<sup>th</sup> day of April, 2002.

Respectfully submitted,



Jesús Juanós i Timoneda, Ph. D.  
Attorney for Applicant  
Registration No. 43,332



**022901**

PATENT TRADEMARK OFFICE



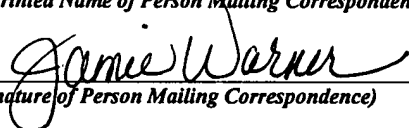
WORKMAN, NYDEGGER & SEELEY  
1000 Eagle Gate Tower  
60 East South Temple  
Salt Lake City, Utah 84111  
Telephone: (801) 533-9800  
Facsimile: (801) 328-1707

JJT: jw

G:\DATA\WPDOCS3\prh\BKD\MICRON\IDS\184-2\_IDS.doc

04-19-02

2826  
#2  
04-29.2

<b>CERTIFICATE OF MAILING BY "EXPRESS MAIL" (37 CFR 1.10)</b>			Docket No. 11675.184.2	
Applicant(s): Salman Akram				
Serial No. 10/083,034	Filing Date February 26, 2002	Examiner Unknown	Group Art Unit 2826	
Invention: <b>CHIP PACKAGE WITH GREASE HEAT SINK</b>				
				
I hereby certify that the following correspondence:				
<div style="border: 1px solid black; height: 50px; width: 100%;"></div> <p>Documents as listed below.</p> <p style="text-align: center;">(Identify type of correspondence)</p>				
<p>is being deposited with the United States Postal Service "Express Mail Post Office to Addressee" service under 37 CFR 1.10 in an envelope addressed to: The Assistant Commissioner for Patents, Washington, D.C. 20231 on</p> <p style="text-align: center;"><u>April 18, 2002</u> (Date)</p>				
 <b>022901</b> PATENT TRADEMARK OFFICE <div style="writing-mode: vertical-rl; transform: rotate(180deg);">             RECEIVED              APR 22 2002              TECHNOLOGY CENTER 2826           </div>		<p style="text-align: center;"><b>Jamie Warner</b> (Typed or Printed Name of Person Mailing Correspondence)</p>		
		<p style="text-align: center;">             (Signature of Person Mailing Correspondence)         </p>		
		<p style="text-align: center;"><b>EL813858236US</b> (“Express Mail” Mailing Label Number)</p>		
		<p>Note: Each paper must have its own certificate of mailing.</p>		
<p>Transmittal Letter (1 pg in dup); Transmittal of IDS (2 pgs); IDS (3 pgs); Cited References; Information Disclosure Citation (2 pg); Certificate of Express Mailing Label No. EL813858236US; Postcard</p>				

**TRANSMITTAL LETTER  
(General - Patent Pending)**

Docket No.  
11675.184.2

In Re Application Of: **Salman Akram**

Serial No.  
10/083,034

Filing Date  
February 26, 2002

Examiner  
Unknown

Group Art Unit  
2826

Title: **CHIP PACKAGE WITH GREASE HEAT SINK**

TO THE ASSISTANT COMMISSIONER FOR PATENTS:

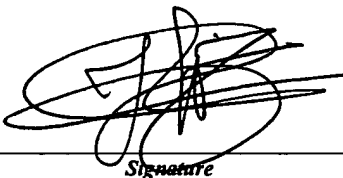
Transmitted herewith is:

Transmittal Letter (1 pg in dup);  
Transmittal of IDS (2 pgs); IDS (3 pgs);  
Information Disclosure Citation (2 pgs); Cited References;  
Certificate of Express Mailing # EL813858236US;  
Postcard

in the above identified application.

- ☒ No additional fee is required.
- ☐ A check in the amount of \_\_\_\_\_ is attached.
- ☒ The Assistant Commissioner is hereby authorized to charge and credit Deposit Account No. \_\_\_\_\_ as described below. A duplicate copy of this sheet is enclosed.
- ☐ Charge the amount of \_\_\_\_\_
- ☒ Credit any overpayment.
- ☒ Charge any additional fee required.

RECEIVED  
APR 22 2002  
TECHNOLOGY CENTER 2800

  
Signature

Dated: April 18, 2002

**Jesus Juanos i Timoneda, Ph.D.**  
Attorney for Applicant  
Reg No. 43,332



**022901**

PATENT TRADEMARK OFFICE

CC:

I certify that this document and fee is being deposited on \_\_\_\_\_ with the U.S. Postal Service as first class mail under 37 C.F.R. 1.8 and is addressed to the Assistant Commissioner for Patents, Washington, D.C. 20231.

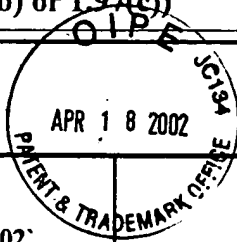
Signature of Person Mailing Correspondence

Typed or Printed Name of Person Mailing Correspondence

**TRANSMITTAL OF INFORMATION DISCLOSURE STATEMENT**  
(Under 37 CFR 1.97(b) or 1.97(c))

Docket No.  
11675.184.2

In Re Application Of: **Salman Akram**



Serial No.  
10/083,034

Filing Date  
February 26, 2002

Examiner  
Unknown

Group Art Unit  
2826

Title: **CHIP PACKAGE WITH GREASE HEAT SINK**

Address to:  
Assistant Commissioner for Patents  
Washington, D.C. 20231

**37 CFR 1.97(b)**

1. ☒ The Information Disclosure Statement submitted herewith is being filed within three months of the filing of a national application other than a continued prosecution application under 37 CFR 1.53(d); within three months of the date of entry of the national stage as set forth in 37 CFR 1.491 in an international application; before the mailing of a first Office Action on the merits, or before the mailing of a first Office Action after the filing of a request for continued examination under 37 CFR 1.114.

**37 CFR 1.97(c)**

2. ☐ The Information Disclosure Statement submitted herewith is being filed after the period specified in 37 CFR 1.97(b), provided that the Information Disclosure Statement is filed before the mailing date of a Final Action under 37 CFR 1.113, a Notice of Allowance under 37 CFR 1.311, or an Action that otherwise closes prosecution in the application, and is accompanied by one of:

☐ the statement specified in 37 CFR 1.97(e);

**OR**

☐ the fee set forth in 37 CFR 1.17(p).

RECEIVED  
APR 22 2002  
TECHNOLOGY CENTER 2800

**TRANSMITTAL OF INFORMATION DISCLOSURE STATEMENT**(Under 37 CFR 1.97(b) ~~of 1.97(e)~~)

Docket No.

11675.184.2

In Re Application: **Salman Akram**

APR 18 2002

Serial No.

10/083,034

Filing Date

February 26, 2002

Examiner

Unknown

Group Art Unit

2826

**CHIP PACKAGE WITH GREASE HEAT SINK****Payment of Fee**

(Only complete if Applicant elects to pay the fee set forth in 37 CFR 1.17(p))

- ☐ A check in the amount of \_\_\_\_\_ is attached.
- ☒ The Assistant Commissioner is hereby authorized to charge and credit Deposit Account No. 23-3178 as described below. A duplicate copy of this sheet is enclosed.
- ☐ Charge the amount of \_\_\_\_\_
- ☒ Credit any overpayment.
- ☒ Charge any additional fee required.

**Certificate of Transmission by Facsimile\***

I certify that this document and authorization to charge deposit account is being facsimile transmitted to the United States Patent and Trademark Office (F

(Date) \_\_\_\_\_

\_\_\_\_\_  
*Signature*\_\_\_\_\_  
*Typed or Printed Name of Person Signing Certificate***Certificate of Mailing by First Class Mail**

I certify that this document and fee is being deposited with the U.S. Postal Service as first class mail under 37 C.F.R. 1.8 and is addressed to the Assistant Commissioner for Patents, Washington, D.C. 20231.

\_\_\_\_\_  
*Signature of Person Mailing Correspondence*\_\_\_\_\_  
*Typed or Printed Name of Person Mailing Certificate*

\*This certificate may only be used if paying by deposit account.

Dated: April 18, 2002  
Jesus Juanos i Timoneda, Ph.D.

Attorney for Applicant

Reg No. 43,332

**022901**

PATENT TRADEMARK OFFICE

CC:

RECEIVED  
APR 22 2002  
TECHNOLOGY CENTER 2800